DECISION RECORD

Reference: Environmental Assessment (EA) for Grazing Authorization, NM-060-99-059

Decision: It is my decision to authorize the issuance of a ten year grazing permit to the Branch Ranch Allotment #65077. The permit will authorize 354 AU's (2978 AUM's at 70% public land) from March 1 to the last day of February each year, Any additional mitigation measures identified in the environmental impacts section of the referenced environmental assessment have been formulated in stipulations, terms and conditions. Comments made to this EA from the Wildlife Management Institute and New Mexico Natural History Institute were considered and necessary changes have been incorporated into the EA and reflected in this Decision Record.

The **Change Livestock Management Alternative (Preferred Alternative)** was selected which includes:

Authorize grazing permit for 354 AU's.

Construct new pasture fences as identified in Map 1 and implement a pasture rotation grazing system after fences have been constructed.

Design future shinnery oak treatments in the West pasture,

Implement the following Terms and Conditions identified on the grazing permit.

1. Changes to these Terms and Conditions may be initiated by either party through the consultation and coordination process.

2. Initiate Robel vegetative monitoring methodology. If prairie chicken habitat requirements are not being met or moving towards the prairie chicken parameters as a result of livestock grazing practices, changes will be implemented in cooperation and coordination with the permittee. Prairie chicken habitat parameters:

Shrub coverage - 25 to 30% composition of entire shinnery oak (SOD) vegetative community
Forb coverage - 10 to 15% composition of entire SOD vegetative community
Grass coverage - 60% composition of entire SOD vegetative community; 10% with a visual obstruction reading (VOR as meaured by Roebel methodology) > or equal to 3.0 decimeters, an average VOR of 1.0 decimeter.

3. Livestock grazing management changes may be required as a result of sustained periods of drought and the vegetative condition resulting from these climatic changes.

4. A range evaluation will take place every three years and adjustments will be made if necessary.

If you wish to protest this proposed decision in accordance with 43 CFR 4160.2, you are allowed 15 days to do so in person or in writing to the authorized officer, after the receipt of this decision. In the absence of a protest, this proposed decision will become the final decision of the authorized officer without further notice, in accordance with 43 CFR 4160.3. Please be specific in your points of protest. A period of 30 days following receipt of the final decision, or 30 days after the date the proposed decision becomes final, is provided for filing an appeal and petition for the stay of the decision, for the purpose of a hearing before an Administrative Law Judge (43 CFR 4.470).

The appeal shall be filed with the office of the Field Office Manager, 2909 West Second, Roswell, New Mexico and must state clearly and concisely your specific points.

Signed by T. R. Kreager — 7/8/99
Assistant Field Manager — Date

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ENVIRONMENTAL ASSESSMENT
for
GRAZING AUTHORIZATION

ALLOTMENT 65077

EA-NM-060-99-059

DECEMBER, 1998

U.S. Department of the Interior
Bureau of Land Management
Roswell Field Office
Roswell, New Mexico

Environmental Assessment for Grazing Allotment 65077

I. Background

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A. Introduction

When authorizing livestock grazing on public range, the Bureau of Land Management (BLM) has historically relied on a land use plan and environmental impact statement to comply with the National Environmental Policy Act (NEPA). A recent decision by the Interior Board of Land Appeals, however, affirmed that the BLM must conduct a site-specific NEPA analysis before issuing a permit or lease to authorize livestock grazing. This environmental assessment fulfills the NEPA requirement by providing the necessary site-specific analysis of the effects of issuing a new grazing lease on Allotment 65077.

The scope of this environmental assessment is limited to the effects of issuing a new grazing permit on Allotment 65077. Over time, the need could arise for subsequent management activities which relate to grazing authorization. These activities could include vegetation treatments (e.g., prescribed fires, herbicide projects), range improvement projects (e.g., fences, water developments), and others. Future management actions related to livestock grazing would be addressed in project-specific NEPA documents as they are proposed.

B. Purpose and Need for the Proposed Action

The purpose of issuing a new grazing permit would be to authorize livestock grazing on public range on Allotment 65077. The lease would be needed to specify the types and levels of use authorized, and the terms and conditions of the authorization pursuant to 43 CFR 4130.3, 4130.3-1, and 4130.3-2.

C. Conformance with Land Use Planning

Upon review of the Roswell Resource Management Plan/Environmental Impact Statement (Bureau of Land Management 1997), the proposed action was found to conform with the Record of Decision as required by 43 CFR 1610.5-5.

D. Relationships to Statutes, Regulations, or Other Plans

The proposed action and alternatives are consistent with the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1700 et seq.); the Taylor Grazing Act of 1934 (43 U.S.C. 315 et seq.), as amended; the Clean Water Act (33 U.S.C. 1251 et seq.), as amended; the Endangered Species Act (16 U.S.C. 1535 et seq.) as amended; the Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.); Executive Order 11988, Floodplain Management; and Executive Order 11990, Protection of Wetlands.

II. Proposed Action and Alternatives

A. Proposed Action:

To authorize the grazing permit on the Branch Ranch allotment # 65077 for 354 AU's (2978 AUMs at 70% public land). Specifically, to authorize a grazing permit for 354 cows from March 1 to the last day of February of each year at 100% public land, **and;**

Continue the livestock management practices that were being implemented prior to this recent transfer. Management practices consisted of large pastures with limited water resources and a lenient best pasture rotation system.

B. Change livestock management alternative:

Alternative number 1:

Authorize the grazing permit at current numbers, 354 AUs **and** by 2001, BLM funds permitting, implement a pasture rotation grazing system after required livestock waters and fencing have been added (See Map 2). Logistically, the ranch will go from a five pasture ranch to a ten pasture ranch with required livestock waters in each pasture.

Design future shinnery oak treatments in northeast corner of allotment
Monitor vegetation with approved methodology
Meet Terms & Conditions identified on grazing permit.

Terms and Conditions:

The following are terms and conditions specific to this alternative. These terms and conditions will not become effective until all actions and projects have been fully implemented. Changes to these terms and conditions may be initiated by either party under the consultation and coordination process.

Robel's vegetative monitoring methodology which has been approved by the five state Lesser Prairie Chicken Interstate Working Group will be implemented to ensure that the lesser prairie chicken habitat requirements are met. Specific parameters include:
Shrub coverage - 25 to 30% of entire vegetative community.
Forb coverage - 10 to 15% of entire vegetative community.
Grass coverage - 60% of entire vegetative community; 10% with a visual obstruction reading (VOR) > or equal to 3.0 decimeters, an average VOR of 1.0 decimeter.

Note: It is important to note that these parameters in certain pastures will not be met until the habitat has time to respond to the new grazing management practices. As long as improvement is being made in those pastures, then changes should not be necessary. If prairie chicken habitat requirements are not being improved as a result of livestock grazing practices, changes will be necessary.

Livestock grazing management changes maybe required as a result of periods of abnormal climatic patterns and the vegetative condition resulting from these climatic changes.

C. No Permit/Lease authorization alternative:
This alternative, if selected, would be to not issue a new grazing lease for the Branch Ranch allotment #65077. No grazing would be authorized on federal land under this alternative..

III. Affected Environment

General Setting

Allotment #65077 is located in Chaves County, approximately 40 miles east of Roswell. The allotment is made up of five large pastures (See Map 1)ranging from approximately 8 to 9 sections in size**.** This allotment consists of 18,828 acres of Federal land, 4,350 acres of State Land, and approximately 3,681 acres of private land. Currently this allotment is categorized as a "I" allotment.

The public lands within this allotment are for the most part landlocked by private and state lands. Surface access to the Federal lands below the Caprock are not accessible, except by permission from the ranch manager to use a private road through his locked gate off Highway 172, Hunting access will be provided by the ranch manager through this gate when prior arrangements have been scheduled.

The primary features in the SOD community are topography influenced by aeolian and alluvial sedimentation on upland plains forming hummocks, dunes, sand ridges and swales and the presence of shinnery oak.

This is a unique community type found primarily below the Llano Estacado or Staked Plains, in an area known as Mescalero Sands. It lies in the Canadian Plains and Southern Desert ecosystem between the elevations of 4,100 feet and 4,300 feet. The topography is gently sloping and undulating sandy plains, with moderate to very steep hummocky dunes of up to ten feet and more in height scattered throughout the area. Some of the dunes are stabilized with vegetation, while a number of them are unstable and shifting. Dune blowouts with shinnery oak and bluestem, either isolated or in dune complexes are common in this community. Annual precipitation for this region averages 12 -13 inches.

The following resources or values are not present or would not be affected by the authorization of livestock grazing on Allotment#65077; Prime/Unique Farmland, Cultural Resources, Native American Religious Concerns, Wild and Scenic Rivers, Hazardous Wastes, water quality, floodplains, Threatened and Endangered Species, Areas of Critical Environmental Concern, and Minority/low Income populations.

Cultural inventory surveys would continue to be required for federal actions involving surface

disturbing activities except where criteria to exempt surveys are met. Eligible and potential eligible sites would continue to be protected from damage or archaeologically treated to mitigate damage.

The impact of the proposed action and alternatives to minority or low-income populations or communities has been considered and no significant impact is anticipated.

A. Affected Resources

1. Soils: The two primary soil units on this ranch are the Faskin-Roswell association and the Roswell-Jalmar association.

Faskin - Roswell :

Soils are 50% Faskin sandy clay loam, 30% Roswell loamy fine sand, and 20% less extensive soils. The Faskin soil is deep and well drained. Permeability of this soil is moderate, available water capacity is high, runoff is medium, water erosion is moderate, while the hazard of soil blowing is very high.

Roswell - Jalmar

Soils are 60% Roswell fine sand and 35% Jalmar fine sand. The Roswell soil is on hummocky sand dunes and the Jalmar soil is in depressional areas. Permeability of the Roswell soil is rapid, water capacity is low, runoff is slow, while the soil blowing hazard is very high. Permeability of the Jalmar soil is moderate, water capacity is moderate, runoff is slow, while the soil blowing hazard is very high.

2. Vegetation:

Vegetative monitoring studies were established in key areas on this allotment in 1980. Data collected at these study locations include plant production, ground cover, plant composition and key forage plant utilization data. Ecological (range) condition ratings were derived from the production study data. From 1980 - 1994 production data was collected 8 years, ground cover and plant composition data 4 years and utilization data 7 years (this data set was dropped in 1991). Allotment evaluations were done in 1980,1985,1990 and 1995. Vegetative data presented in this environmental assessment are derived from the monitoring studies. Study data summaries are presented in tables and as attachments to this document.

The primary ecological (range) site on the public lands is Deep Sand CP-2 and Sand Hills CP-2 .. Key vegetation is shinnery oak with bluestem and dropseed grasses. The deep sand community is a unique ecological area dominated by tall and mid-grasses. In many areas, the shinnery oak community has shifted from a dominant sand bluestem/little bluestem/hairy grama grassland with varying amounts of shinnery oak, sand sage and

yucca to a community dominated by sand dropseed, red and purple three-awn and hairy grama, with increasing annual forbs, shinnery oak, mesquite, sand sage and yucca.

The Desired Plant Community (DPC) as outlined in the Roswell RMP/EIS, established broad resource objectives for the Shinnery Oak Dune community. The vegetative cover by percent composition objectives for the SOD community are grasses 50 - 70 %, forbs 10 - 15 %, shrubs & trees 25 - 40 %. The ground cover objectives for this community are: bare ground 5 - 20 %, litter 25 - 70 %, small & large rock 0 - 1 %, grass & forbs 16 - 40 % and shrubs & trees 3 - 17 %. Allotment specific DPC's were left to be developed at the individual activity plan level. A comparision of these resource objectives to the long term monitoring for this allotment is shown in Attachment 1.

While the RMP established the broad resource objectives for the various community types, it also provided that these objectives should be consisent with the capabilities of the particular ecological site. As was stated previously, the primary ecological sites on this allotment are Deep Sand CP-2 and Sand Hills CP-2. Ecological site descriptions for ground cover on these sites allow for 0-35% bare ground,0-30% litter, 0% rock, 0-25% grass and forbs and 0-10% shrub and trees.

The grass component is dominated by bluestems, threeawns, dropseeds, black and hairy grama and a lesser amount of sand paspalum and fall witchgrass; the shrub component is dominated by shinnery oak, sand sage, yucca and some mesquite; the forb component is comprised of a variety of both annual and perennial species.

The current monitoring data indicates that elements of ground cover objectives (bare ground and grass & forbs) are not being met presently. The resource objectives for vegetative composition are being met with the exception of the forb component. The forb component may not be met due to the study methodology used by the RFO. Only perennial forbs are tallied on the pace-point transects; annual forbs are classified as litter. Attachment 2 provides a summary of monitoring data ,broken out by study methodology, for each study on the allotment. The data includes species data.

Total vegetative production by year is summarized in the table below. Attachment 2 shows average production composition by vegetative class for each pasture of the allotment. Current vegetative data reflects that ecological (range) condition is at a high fair/low good rating. Range trend is static. Forage utilization has averaged below 45% on the long term.

Production BY Study Year (lbs/Ac)									
Pasture	1980	1981	1982	1983	1984	1986	1989	1994	Avg

NE #3	324	563	1146	284	496	488	1082	691	638
WEST #4	410	441	653	277	976	482	267	1027	639
EAST #5	309	901	787	420	896	614	1103	993	662
SE #1(#2 NORTH)	304	758	579	156	528	604	1066	1038	651
SE #2(SOUTH)	232	779	787	415	659	788	834	1295	671
SW #1 (SOUTH #1)	215	819	971	307	730	538	1049	1447	681
SW #2 (NORTH #1)	212	755	683	207	1124	939	1285	983	691
Annual Average	287	717	801	295	773	636	955	1068	662

Bluestem species and shinnery oak are important components of prairie chicken habitat and provide benefits to it's life cyle. The below table reflects this component in the present vegetative resource.

Average percent of Bluestem and Shinnery Oak Composition (Based on Long Term Monitoring Studies)									
Pasture	Composition - %			Ground Cover - %			Production - %		
	ANHA*	ANSC2	QUHA3	ANHA*	ANSC2	QUHA3	ANHA*	ANSC2	QUHA3
NE #3	3.08	4.25	40.00	1.0	1.0	9.59	2.62	7.58	55.69
WEST #4	0	2.08	33.33	0	0.67	7.92	6.72	3.60	49.97
EAST #5	1.00	1.67	19.92	0	0.67	5.50	0.32	0	24.77
SE #1(#2 NORTH)	18.81	4.13	31.49	5.94	1.98	7.33	0	4.95	39.76
SE #2(SOUTH)	2.44	5.44	38.84	0.84	0.78	11.59	14.62	14.90	44.64
SW #1 (SOUTH #1)	8.40	2.92	9.84	2.84	1.22	3.33	26.25	10.94	23.22
SW #2 (NORTH #1)	9.59	4.43	21.69	3.42	1.56	10.28	18.02	21.51	20.19
Average	6.19	3.56	27.87	2.01	1.13	7.93	9.79	9.07	36.89

*Inludes ANGE - Big Bluestem, ANHA = Sand Bluestem, ANSC2 = Little Bluestem, QUHA3 = Shinnery Oak

The current vegetative resources on this allotment appear to be stable and the rangeland trend is static. The allotment is approximately 70% public land and has a predominance of

shinnery oak. There is a mix of shinnery oak and bluestem species, however the structure and composition level of bluestem species is not at the desired level for prairie chicken habitat. The data used for this assessment is available at the Roswell Field Office.

3. Wildlife:

The Caprock Wildlife Habitat Area (WHA) includes the Branch Ranch Allotment. (65077). The Caprock WHA provides diverse habitat for more than 54 birds species, 33 species of mammals, and 36 species of reptiles and amphibians.

Raptors that are frequently associated with the vegetation types on this allotment are the red-tailed hawk, swainson's hawk, ferruginous hawk, roughlegged hawk, common nighthawk, and the american kestrel.

Game bird species in this areas include the lesser prairie chicken, scaled and bob white quail, and the mourning dove.

Other bird species that are usually observed are the turkey vulture, roadrunner, chihuahuan raven, great-horned owl, burrowing owl, northern flicker, loggerhead shrike, western meadowlark, western kingbird, pyrrhuloxia, horned lark, and other passerine birds.

At least 33 species of mammals occur on or utilize this allotment. The diversity of small mammals provide for an excellent prey base for carnivores such as the coyote, gray fox, bobcat, raccoon, badger, hooded skunk and striped skunk.

Mammals that provide a prey base include the black-tailed jack rabbit, desert cottontail, spotted ground squirrel, pocket mice, deer mouse, kangaroo rats, northern grasshopper mouse, harvest mice, and the white throated woodrat.

Two big game species that occur the allotment are pronghorn antelope and mule deer.

Reptiles and amphibians that inhabit the area are the dune sagebrush lizard, southern prairie lizard, lesser earless lizard, side-blotched lizard, longnose leopard lizard, sixlined racerunner, tree lizard, skinks, western diamond back, western rattlesnake, coachwhip, spadefoot toads, western box turtle, and the yellow mud turtle.

4. Special Status Species :

Federal threatened, endangered and candidate species as well as state-listed threatened or endangered species potentially occurring within the proposed project area will be analyzed in this document. Candidate species and State listed species do not receive protection under the ESA until proposed. However, within the act and under BLM policy the bureau

has an obligation to ensure actions do not contribute to the need to list these species.

Dune Sagebrush Lizard

The dune sagebrush lizard is listed by the New Mexico Department of Game and Fish as Endangered, Group 2 and by the U. S. Fish and Wildlife Service as a Category 2, Notice of Review species. The dune sagebrush lizard only occurs in the southeastern corner of New Mexico and the western region of Texas. Within that range its habitat is restricted to active sand dunes and their peripheries (Degenhardt and Jones 1972). Shinnery oak is the dominate plant species that surrounds the top edge of the active sand dune, with a small composition of grasses inside the blowout area.

During 1991 a study was begun to examine the effects of the removal of shinnery oak on lizard habitat. Through five years of research it was demonstrated that there were 70%-94% fewer lizards in treated pastures as compared to non-treated pastures.

Lesser Prairie Chicken

Several years ago a petition was filed with the U. S. Fish and Wildlife Service (FWS) to list the prairie chicken as threatened. On June 1, 1998 the FWS announced a finding for the petition. After review of all available scientific and commercial information, the Service finds that listing this species is warranted but precluded by other higher priority actions to amend the Lists of Endangered and Threatened Wildlife and Plants. The lesser prairie chicken is added to the Service's candidate species list.

In southeastern New Mexico, lesser prairie chickens exist in the shrub-dominated High Plains Bluestem Subtype by using mixed stands of tall grass and shinnery oak.

Male prairie chickens visit or establish booming grounds (leks) from early March to late May, with the peak booming activity occurring around the middle of April. Booming grounds can be found in mesquite shortgrass, shinnery oak grasslands, shinnery oak dunes, abandoned oil/gas pads, pipelines and roads. The basic requirement for lek sites is visibility of the immediate surroundings (shortgrass and topography)..

Female prairie chickens prefer range in excellent condition for nesting. In areas of shinnery oak, nesting studies (Copelin 1963, Riley 1978) indicate that these birds prefer shinnery oak rangeland habitat dominated by mid and tall grass species. Wisdom (1980) demonstrated that nesting success was enhanced by the presence of tall, wide clumps of sand bluestem, which are found in a few near-climax areas in the shinnery oak-grassland, while areas devoid of sand bluestem were not highly conducive to nesting success. In areas where sand bluestem is scarce, little bluestem apparently serves as an acceptable substitute Merchant (1982). Riley et al. (1992) found that most successful nests occurred where basal composition of sand bluestem was greater and the height of vegetation above successful

nests averaged 67 cm, while height of vegetation above unsuccessful nests averaged 35 cm. Copelin (1963) found that the most successful nests were placed between clumps of grass residue left from the previous year's growth that provided overhead cover.

Brooding areas are often within habitats which are in lower seral stages usually having a high proportion of bare ground and annual forbs (Riley et al. 1992, Jones 1963).

Food requirements vary among the seasons. Prairie chickens rely heavily (97%) on forbs and other green plant material during the spring and invertebrates in the summer. The early fall diets consist of invertebrates and green plant material, while winter diets consist of mast from
shinnery oak.

Above is a general description of prairie chicken habitat requirements. As with most wildlife species, especially upland game birds, precipitation plays a large role in population fluctuations and habitat conditions. Precipitation patterns have fluctuated drastically for the last twenty years. During the middle eighties precipitation was above normal and chicken populations responded very well. For the exception of two years, precipitation has been well below normal during the 1990's.

As indicated by the vegetative data most to the allotment is providing some of the habitat requirements for the lesser prairie chicken; but not to the desired quantity and quality. Comparing our data to Davis's percent ground cover in each subtype, there is 1 pasture that falls within subtype 1, 3 pastures within subtype 2 and 1 pasture within subtype 3 for grass cover. Overall this is not necessarily bad when considering the seasonal habitat requirements for lesser prairie chickens, but a more intensive and controlled livestock management scheme needs to be implemented.

Population Monitoring Data

The Roswell Field Office has actively monitored prairie chicken booming grounds, population trends and habitat since the early seventies. Historically in New Mexico, the LPC occupied most of the eastern plains. However, numbers and occupied range of the species are much reduced since pre-settlement times; apparently in response to prolonged heavy grazing and brush control in combination with the great drouths of the 1930's and 1950's. It has been reported that currently the LPC occupies approximately one half their original range in New Mexico.

Since the early 1970's LPC populations have fluctuated up and down with the highest period occurring during the middle 1980's. Within the proposed project area, there are ten documented booming grounds that have been active at one time or other. During the middle eighties 7 out of the 10 leks were active totalling 62 birds. In 1996 one lek was active with 6 birds utilizing the area. In the spring of 1998, 3 of the 10 leks were active with a total of 25 birds being observed.

5. Livestock Management:

The allotment is grazed by cattle. Current allotment information reflects the present livestock operation is a cow-calf and/or yearling herd up to 250 cows or 500 yearlings at any given time (per lease filed with BLM). Normal operations are at lower numbers. The lessee utilizes five pastures in a best pasture/deferred rotation system . In shinnery oak dominated pastures livestock are removed during the period that shinnery is toxic, normally mid March and April, to prevent livestock loss. On many occasions the lessee has deferred the shinnery dominated pastures from mid March to the first frost (usually late October),however this is not a consistent action. This past winter the permittee pulled most of the livestock to his private lands up on top of the Caprock.

6. Visual Resources:

The allotment is located in a Class IV Visual Management Area. The Class IV rating means that contrasts may attract attention and be a dominant feature in the landscape in terms of scale. However, the changes should repeat the basic elements of the landscape.

7. Air Quality:

The allotment is in a Class II area for the Prevention of Significant Deterioration of air quality as defined in the federal Clean Air Act, which allows a moderate amount of air quality degradation. Air quality is generally good, Winds are typically southeasterly during the summer, and becoming southwesterly in the winter and early spring. Winds average 10 miles per hour in the fall and 16 miles per hour in the spring, with peak velocities reaching 50 miles per hour. These conditions rapidly disperse air pollutants in the region.

8. Recreation:

Recreational opportunities on the public lands are somewhat limited due to the limited access. The primary recreational activity occurring in this area is hunting. Mule deer, pronghorn antelope, and game birds such as quail and dove are taken during hunting seasons set by the New Mexico Department of Game and Fish. Off Highway Vehicle designation for public lands within this allotment are classified as “Limited” to existing roads and trails.

IV. Environmental Impacts

A. Impacts of the Proposed Action

1. Soils:

The permitted use as described in the proposed action is not anticipated to have any adverse impact to the current soil conditions. Some soil loss would continue to occur due to the windy conditions that prevail in this region during parts of the year. If vegetative cover remains stable soil loss may be minimized.

Changes in vegetative ground cover is often linked to the amount and timing of precipitation events. This assessment is based on the assumption that the area will receive at least the long term average in precipitation both in timing and amount.

2. Vegetation:

The continuance of the permitted use at the current use levels authorized by the expiring permit is not anticipated to have any adverse impact to the current vegetative conditions. The vegetation will continue to be grazed and trampled by domestic livestock as well, other herbivores as well rabbits, rodents and insects. Under the proposed action , it is not anticipated that a significant change in the vegetative composition or amount available for use will occur. The continuance of the present livestock management practices is not anticipated to alter the vegetative composition. The pastures will continue to get some deferment as outlined in the affected environment. Ecological condition and trend is expected to remain stable over the long term at this level of use.

3. Wildlife:

Domestic livestock will continue to utilize vegetative resources needed by a variety of wildlife species for life history functions within this allotment. The magnitude of livestock grazing impacts on wildlife is dependent upon the species of wildlife being considered, and it's habitat needs. In general, livestock stocking rate adjustments have been made in the past to minimize the direct competition for those vegetative resources needed by a variety of wildlife species. Cover habitat for wildlife will remain the same as the existing situation. Maintenance and operation of existing waterings will continue to provide dependable water sources for wildlife, as well as livestock.

Special Status Species:

Under the proposed action, there would be minimal impacts to the sand dune lizard due to the dispersal of livestock. Areas where there is a concentration of livestock (waterings and fence corners) the habitat may be of lower quality, but these areas are small in nature. Range improvements (pipelines) may enhance lizard habitat by creating open dunal areas that are usually bordered by shinnery oak.

Under the proposed action negative impacts to the lesser prairie are likely to continue, especially during drought conditions. Seasonal habitat requirements would remain inadequate in the northern and western portions of the allotment. These areas may provide brood rearing habitat, but nesting (bluestems), foraging and wintering habitat is in low quantity and quality. The southern pastures provide excellent nesting habitat with shinnery oak motts interspersed, but without a rest rotation system and strict monitoring these areas under current management may become negatively impacted.

5 Livestock Management:

Under the proposed action there would be no impacts to the current livestock management. The allotment would continue to be grazed in the same manner as it is currently. The larger block of public land in the northwest portion of the allotment would continue to be deferred during period that shinnery oak is toxic. It would also be anticipated that this area would continue to have periodic deferment during other periods of the year.

6. Visual Resources:

The continued grazing of livestock would not affect the form or color of the landscape, or the primary aspect of the vegetation within the allotment.

7. Air Quality:

The impacts to air quality would not change from the current situation. A moderate amount of air quality degradation would continue.

8. Recreation:

Minimal impacts to recreational use are anticipated, since the public lands are land locked and there is limited access

B. Impacts from the Change Livestock Management alternative

Under the change of livestock management alternative and associated range improvements, positive impacts would result to vegetation by providing additional rest during the growing seasons. With the construction of additional pastures and moving the livestock accordingly, it is anticipated that each pasture will receive atleast 8-10 months rest. This will have a positive indirect affect on soils, visual resources and lesser prairie chicken habitat.

Utilizing Robel's vegetative monitoring to ensure lesser prairie chicken habitat requirements outlined in the terms and conditions of this alternative are being achieved will have significant positive impacts to the lesser prairie chicken. Close monitoring of the structure and composition of vegetation will ensure that ample prairie chicken habitat is available each year. Allowing for flexibility and changing of livestock numbers and management during

drought conditions will also benefit wildlife habitat.

Proper designing of shinnery oak control in the northern and western portions of the allotment will have little impact to the sanddune lizard, since sand dune blowout complexes will be avoided. Ted B. Doerr from Texas Tech University recommends interspersed treatments rates of 0.2 and 0.6 kg/ha for improving prairie chicken habitat. This treatment method along with proper resting of pastures should improve nesting habitat while maintaining areas of shinnery oak.

C. Impacts of the No Livestock Grazing Alternative.

The No Livestock Grazing Alternative has been previously analyzed at the National level in the Rangeland Reform '94 EIS and in the Roswell RMP/EIS. An in depth analysis of this alternative will not be made in this document. General impacts under this alternative would include no new rangeland improvement and the removal of existing rangeland improvements unless a determination was made that they were beneficial to other uses. Since no grazing authorizations on public lands would be permitted, livestock operators grazing lands adjoining Federal lands would be responsible for preventing the unauthorized use of these Federal lands. The BLM would not fence these lands. Rangeland administrative emphasis would shift to issuing crossing permits to or from nonfederal land inholdings and resolving unauthorized use.

V. Cumulative Impacts

Under the proposed action there would be no change in the cumulative impacts since it does not vary from the current situation.

Under the change livestock management and/or numbers alternative there would be little change in the cumulative impacts. Livestock management facilities are anticipated to remain stable. Roads might increase if additional land development increased. Livestock would continue to graze the land.

VI. Residual Impacts

Under the proposed action and the no grazing alternative there would be no change in the residual impacts.

Under the change livestock management alternative, approximately 8 miles of fence would be added to the existing livestock facilities and fencing that dot the landscape.

VII. Mitigating Measures And/Or Permit/Lease Conditions

Under the proposed action and no grazing alternative no mitigating measures are required.

Under the change livestock management and/or numbers mitigating measures outlined below may be required.

Under the proposed action, compliance with the grazing regulations (43 CFR Part 4100) will incorporated into the terms of the permit/lease.

ATTACHMENT 1

COMPARISON OF DESIRED PLANT COMMUNITY RESOURCE OBJECTIVES TO LONG TERM ALLOTMENT AVERAGE IN THE SHINNERY OAK

ALLOTMENT : 65077		PERCENT COVER OBJECTIVES					VEGETATIVE COVER OBJECTIVES	
PASTURE/ ECOLOGICAL SITE	ECOLOGICAL NAME	BARE GROUND (5 -20%)	LITTER (25 - 70%)	SMALL & LARGE ROCK (0 -1%)	GRASS & FORBS (16 - 40%)	SHRUBS & TREES (3 -17%)	GRASSES (50 - 70%)	FOR (10-
NE #3		48.25	33.67	0.00	7.50	10.59	56.50	
070BY061NM	SAND HILLS CP-2							
WEST #4		48.00	31.67	0.00	10.08	10.25	60.08	
070BY063NM	DEEP SAND CP-2							
EAST #5		38.75	33.42	0.08	9.58	18.17	43.67	
070BY063NM	DEEP SAND CP-2							
SE #1 (#2 NORTH)		40.10	38.89	0.00	8.62	12.39	51.87	
070BY061NM	SAND HILLS CP-2							
SE #2 (SOUTH)		47.96	30.27	0.00	8.42	13.34	54.67	
070BY063NM	DEEP SAND CP-2							
SW #1 (SOUTH #1)		43.58	36.84	0.00	17.91	1.66	89.75	
070BY063NM	DEEP SAND CP-2							
SW #2 (NORTH #1)		44.59	33.76	0.00	13.19	8.46	72.80	
070BY063NM	DEEP SAND CP-2							
ALLOTMENT COMMUNITY AVERAGE		44.46	34.07	0.01	10.76	10.69	61.33	